STATEMENT OF COMMON OWNERSHIP

As stated in the document titled "Assignee Prior Art Exclusion Under 35 U.S.C. §103(c)" submitted herewith; Application No. 10/810,905 and Patent No. 6,677,201 were, at the time the invention of Application No. 10/810,905 was made, owned by Texas Instruments Incorporated.

REMARKS

The Applicants thank the Examiner for the careful examination of this application and respectfully request the entry of the amendments indicated hereinabove.

Claims 1-10 are pending and rejected. Claims 11-18 are withdrawn from consideration.

As noted above in the section titled 'Statement of Common Ownership', the Applicants respectfully submit that the Bu et al. patent (6,677,201) is disqualified prior art for purposes of obviousness under 35 U.S.C. §103.

Independent Claim 1 positively recites forming an interfacial layer of nitrogen at the interface of the insulating layer and the lightly-doped extension regions of a CMOS transistor. These advantageously claimed features are not taught or suggested by the patents of Iwasaki or Chang; either alone or in combination.

Chang does not teach the advantageously claimed invention because Chang does not teach forming an interfacial layer of nitrogen at the interface of the insulating layer and the lightly-doped extension regions of a CMOS transistor

(column 4 lines 11-21). Similarly, Iwasaki does not teach the advantageously claimed invention because Iwasaki does not teach forming an interfacial layer of nitrogen at the interface of the insulating layer and the lightly-doped extension regions of a CMOS transistor (column 3 lines 10-44, column 7 lines 44-52). Furthermore, Iwasaki teaches away from the advantageously claimed invention because Iwasaki teaches the formation of transistors that don't have lightly-doped extension regions (column 3 lines 10-44, FIGS. 1C, 2C, 4B, and 5-7). Moreover, those of ordinary skill in the art would not combine a fabrication process for forming a transistor having a LDD region (element 210 of Chang) with a fabrication process for forming a transistor having a source and drain ion-implanted through a metal film and no LDD (Iwasaki, column 3 lines 40-44). Therefore, the combination of Chang and Iwasaki also does not teach forming an interfacial layer of nitrogen at the interface of the insulating layer and the lightly-doped extension regions of a CMOS transistor, as advantageously claimed.

Due to the foregoing reasons, the Applicants respectfully traverse the Examiner's rejection of Claim 1 and respectfully assert that Claim 1 is patentable over Iwasaki and Chang; either alone or in combination. Furthermore, Claims 2-9 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

Independent Claim 10 positively recites forming an interfacial layer of nitrogen between the lightly-doped extension regions and the silicon oxide layer of a CMOS transistor. These advantageously claimed features are not taught or suggested by the patents of Iwasaki or Chang; either alone or in combination.

Chang does not teach the advantageously claimed invention because Chang does not teach forming an interfacial layer of nitrogen between the lightly-doped extension regions and the silicon oxide layer of a CMOS transistor (column 4 lines 11-21). Similarly, Iwasaki does not teach the advantageously claimed invention because Iwasaki does not teach forming an interfacial layer of nitrogen between the lightly-doped extension regions and the silicon oxide layer of a CMOS transistor (column 3 lines 10-44, column 7 lines 44-52). Furthermore, Iwasaki teaches away from the advantageously claimed invention because Iwasaki teaches the formation of transistors that don't have lightly-doped extension regions (column 3 lines 10-44, FIGS. 1C, 2C, 4B, and 5-7). Moreover, those of ordinary skill in the art would not combine a fabrication process for forming a transistor having a LDD region (element 210 of Chang) with a fabrication process for forming a transistor having a source and drain ion-implanted through a metal film and no LDD (Iwasaki, column 3 lines 40-44). Therefore, the combination of Chang and Iwasaki also does not teach forming an interfacial layer of nitrogen between the lightly-doped extension regions and the silicon oxide layer of a CMOS transistor, as advantageously claimed.

Due to the foregoing reasons, the Applicants respectfully traverse the Examiner's rejection of Claim 10 and respectfully assert that Claim 10 is patentable over Chang and Iwasaki; either alone or in combination.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,

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